

Amendments to the Claims

Please cancel Claims 23 and 26, without prejudice or disclaimer of subject matter recited therein.

1. (Previously Presented) Apparatus for generating and testing speech models, said apparatus comprising:

    a data collection unit operable to collect utterance data indicative of the pronunciation of words;  
    an utterance store operable to store utterance data collected by said data collection unit, said utterance store being configured to associate each item of stored utterance data with speaker data identifying the speaker from whom said utterance data was collected and word data identifying the words items of utterance data represent;

    a speech model generation unit operable to receive user input identifying a user selection comprising a plurality of items of speaker data and one or more items of word data and responsive to receipt of user input to generate speech models of words utilizing utterance data stored in said utterance store associated with speaker data and word data corresponding to the input selection of speaker data and word data; and

a testing unit operable to test the accuracy of the matching of utterances collected by said data collection unit to speech models generated by said speech model generation unit utilizing utterance data stored in said utterance store associated with speaker data and word data corresponding to an input selection of speaker data and word data and to generate a visual display of the results of said testing by said testing unit.

2. (Previously Presented) Apparatus in accordance with claim 1, further comprising:

a vocabulary database operable to store word data indicative of one or more words; and

a speaker database operable to store speaker data indicative of speakers from whom utterance data is to be collected,

wherein said data collection unit is operable:

to generate a first user interface to enable user input of speaker data for storage in said speaker database;

to generate a second user interface to enable user input of word data for storage in said vocabulary database; and

to generate a third user interface operable to generate a series of prompts to prompt the utterance of words corresponding to word data stored in said vocabulary database by speakers identified by speaker data stored in said speaker database and to synchronize said series of prompts with the collection of utterance data indicative of pronunciation of words.

3. (Previously Presented) Apparatus in accordance with claim 2, wherein said series of prompts generated by said third user interface comprises a generation of a series of visual instructions to speakers identified by speaker data in said speaker database to pronounce words identified by word data stored in said word database.

4. (Previously Presented) Apparatus in accordance with claim 2, wherein said third user interface is operable to generate a series of prompts comprising user instructions to stay quiet immediately preceding and succeeding instructions to a speaker identified by an item of speaker data to pronounce a word identified by an item of word data, wherein said collection of utterance data is performed whilst all of said instructions are displayed.

5. (Original) Apparatus in accordance with claim 2, wherein said third user interface is operable to display a waveform indicative of collected utterance data whilst said utterance data is being collected.

6. (Previously Presented) Apparatus in accordance with claim 2, wherein said data collection unit is operable subsequent to the collection of an item of utterance data to generate a user interface to display a waveform corresponding to said collected utterance data and to permit user deletion of stored utterance data corresponding to the waveform displayed by said data collection unit.

7. (Previously Presented) Apparatus in accordance with claim 2, wherein said data collection unit is operable subsequent to the collection of an item of utterance data to output audio data corresponding to said collected utterance data and to permit user deletion of stored utterance data corresponding to audio data output by said data collection unit.

8. (Previously Presented) Apparatus in accordance with claim 2, wherein said data collection unit further comprises a selection unit operable to generate a user interface enabling user selection of speaker data stored in said speaker database and word data stored in said vocabulary database wherein said data collection unit is responsive to user selection of speaker data and word data via said selection unit to generate a series of prompts to prompt the utterance of a series of words corresponding to selected word data by speakers corresponding to selected speaker data selected utilizing said selection unit.

9. (Previously Presented) Apparatus in accordance with claim 8, wherein said data collection unit is responsive to user selection of speaker data and word data via said selection unit to generate said series of prompts to prompt the utterance of words identified by items of word data by speakers identified by items of speaker data a number of times wherein a number of prompts for a speaker to pronounce a word is determined by the number of items of utterance data stored by said data collection unit associated with selected items of word and speaker data.

10 and 11. (Cancelled).

12. (Previously Presented) Apparatus in accordance with claim 1, wherein said speech model generation unit further comprises a data store operable to store constraint data wherein said speech model generation unit is operable to determine whether received user input identifying a user selection of one or more items of speaker data and one or more items of word data fulfills the requirements defined by constraint data stored in said data store and to generate speech models of words if received user input identifies items of speaker and word data which fulfill the requirements defined by said constraint data.

13. (Previously Presented) Apparatus in accordance with claim 12, wherein each said item of speaker data is associated with gender data wherein said constraint data comprises data identifying a relationship the gender data associated with items of speaker data is required to fulfill.

14. (Previously Presented) Apparatus in accordance with claim 12, wherein said constraint data comprises data indicative of a number of utterances wherein said speech model generation unit is operable to generate speech models of words when said data collection unit has stored utterance data associated with said identified items of speaker data identified by user input corresponding to the required number of repetitions identified by said constraint data of words identified by items of word data identified in said user input.

15. (Previously Presented) Apparatus in accordance with claim 1, wherein said testing unit is operable to generate a user interface to enable a user to identify speech models generated by said speech model generation unit and to select utterance data stored by said utterance store and to test said identified models utilizing said selected utterances.

16. (Previously Presented) Apparatus in accordance with claim 15, wherein said testing unit is operable to generate a user interface enabling a user to identify sets of utterances collected by said data collection unit corresponding to utterances indicative of the pronunciation of different words by different speakers, said testing unit being responsive to the selection of said sets of utterance data to test speech models generated by said speech model generation unit utilizing said selected sets selected of utterance data.

17. (Previously Presented) Apparatus in accordance with claim 16, wherein said testing unit is operable to enable user selection of sets of utterances comprising utterance data collected from the speakers from whom utterance data was utilized by said speech model generation unit to generate said speech models being tested.

18. (Previously Presented) Apparatus in accordance with claim 17, wherein said testing unit is operable to enable user selection of sets of utterances comprising utterance data collected from speakers, utterance data from whom was not utilized by said speech model generation unit to generate said speech models being tested.

19. (Previously Presented) A storage medium having computer implementable instructions stored thereon for generating within a programmable computer an apparatus in accordance with any of claims 1-9 and 12-18.
20. (Original) A storage medium in accordance with claim 19, comprising a disk.
21. (Previously Presented) A storage medium in accordance with claim 20, comprising a magnetic, optical or magneto optical disk.
22. (Previously Presented) A storage medium in accordance with claim 19, comprising an electrical signal in a communications network.
- 23-26. (Canceled).